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GUIDANCE FOR WRITING AN EMERGENCY RESPONSE PLAN

This document provides questions and issues to consider when writing your emergency response plan. The questions in this guide are intended to complement the emergency plan template. The format presented in the template is only a suggestion and the questions should remain relevant regardless of the format you choose to use for your plan. Although it is impossible to anticipate all aspects of a specific emergency, the more questions you ask yourselves during the planning process, the better prepared you will be during an event. It is important to remember that the more involved and the better trained your staff is, the more flexible your response will be to situations that you may not have anticipated. If you have a satellite laboratory within your facility be sure to include their capabilities and capacities in your planning.

PLAN ADMINISTRATION GUIDELINES

This section describes how the plan is written, maintained, trained, and exercised. The following issues need to be considered:

1. Laboratory management must take ownership of the plan and communicate that to the staff.
2. Determine who will be involved in the actual writing of the emergency plan. If a team approach is used, make assignments and set realistic deadlines. Attempting to write the whole plan in one (1) sitting or in one (1) month is unrealistic and overwhelming. It is easier to accomplish your goal if you work in sections, especially when you must consult outside partners. You probably will not get everything accomplished on the first attempt, but you will have made a start that you can build on.
3. Before an emergency plan can be developed, it is important that a current laboratory assessment document be completed. This will be the basis for constructing a realistic and flexible emergency response plan.
4. All laboratory staff should contribute to the plan. Decisions made at the management level are not always the most effective or efficient. Contributions offered by those of your staff performing specific tasks will often eliminate roadblocks to effective performance.
5. Outside partners, (those not part of the laboratory facility) should be identified and consulted. Their input should be solicited concerning those points where their responsibilities interface with the plan. For example, if an emergency room (ER) is receiving large numbers of casualties, will the ER staff or the laboratory staff perform the collection and transport of laboratory specimens?
6. A primary decision-making authority, plus two alternates if possible, should be assigned at critical decision points within your plan. This should eliminate confusion if one or more staff with the power to make decisions is not available.
7. Certain individuals must be assigned the responsibility for reviewing and updating the plan. The plan is a living document and for it to function properly in an emergency it must be modified as conditions change within the laboratory, the facility, or within a partner's scope of responsibility. A plan that is not regularly reviewed and updated is a waste of time and effort.
8. Laboratory staff must receive training in how the plan will function. This should also be part of orientation when hiring new staff members.

9. All employees have responsibilities and concerns outside the workplace and it is wise to provide employees with training on how to construct a family emergency plan. The better prepared their families are to deal with an emergency, the more effectively the staff will perform in the laboratory. The American Red Cross has a program entitled "Your Family Disaster Plan" and will present it to your staff upon request.
10. It is important to exercise the plan. This allows the staff to become familiar with the plan and their responsibilities within the plan, as well as allowing staff and management to identify weaknesses in the plan. A post exercise report should be completed and shared with staff and partners, if appropriate. Any identified weaknesses in the plan must be addressed. It can be overwhelming to exercise the whole plan at one time and may be more effective to exercise certain aspects of the plan individually. For example, exercise specimen collection, accession and transport, or communication with physicians, first responders, and local emergency management organizations.
11. How the laboratory's plan integrates with the hospital or facility plan is vital. The laboratory director must be proactive to ensure that the laboratory is an active member of the facility's emergency planning team.
12. It is important that the laboratory director ensure the laboratory is registered with the State Public Health Laboratory (SPHL) as part of Missouri's Laboratory Response Network. (MOLRN). This registration includes both contact information and self-evaluation of testing capabilities. This provides a communication channel between the SPHL and your laboratory during an event, ensures updates on technical information, provides notification of training opportunities, etc. The laboratory director should assume or delegate responsibility for maintenance of this contact information.

OPERATIONAL GUIDELINES

I. Direction and Control

- A. What procedures are to be utilized by laboratory personnel to alert hospital and community partners about a possible event? Include a list of reportable diseases and 24/7 telephone numbers for identified partners, such as the local public health agency, in an appendix where it can be easily updated.
- B. During an actual event, how will the laboratory be managed? Will the director make all of the decisions, or will you utilize an emergency management team composed of the director and supervisory staff? Will supervisors of all shifts be a part of this team? If you have a satellite laboratory at another location, will a person from the satellite laboratory be a part of the team? If you have more than one satellite laboratory off-site, what role will they play in management of an event? Remember to include these laboratories in your planning, including defining what their roles will be and establishing emergency communication channels to keep them aware of the changing landscape during an event. You may also want to address this issue under: V. Communication.
- C. How will this management structure function during an event? This is a critical decision point and responsibility should rest with a primary decision-making authority, plus two alternates if possible. If you decide the director will make all of the decisions, will he/she work 24/7 or will there be backup for him/her? How will the laboratory function if the director is unavailable? How will the director communicate decisions to the laboratory staff?
 - If you decide on a team approach, who will be a part of the team? What will each member's duties be? Will the team meet once or twice a day to assess the current situation and adjust the plan/response? Will someone record decisions made and make sure that all team members receive a copy? How will decisions be communicated to the staff?
- D. How will the laboratory's command structure interface with the facility's Incident Management System? Consider providing a reference manual for individual(s) that include both current work capacity and technical information for decision-making, along with the laboratory plan. If you create this manual, whose responsibility is it to keep it updated? Where will it be located? If a backup person has to assume these responsibilities, can they locate it?
- E. Consider how the laboratory staff will provide feedback to the management system. It is important that they be able to quickly provide changes in conditions to the event management staff. For example, information such as the inability to secure needed testing reagents or inability of certain staff to report for duty will effect event management decisions. How formal this feedback loop should be will depend on the size of the laboratory.
- F. Do you have Mutual Aid Agreements with surrounding laboratories? If so, how will these work? How are samples transported to other laboratories? How are reports returned from those laboratories? Is this agreement in conjunction with a total hospital mutual aid agreement? If patients are transferred to another facility, how will laboratory results stay connected with the patient?

II. Workforce Management

This section describes workforce management during an event. Depending on the size and complexity of the laboratory, this can be very simple or quite complicated. The major point to consider is how your workforce management will need to be different during an event. Where appropriate, list who will make the decisions about the workforce by position title.

- A. Capability refers to the various skills that your employees bring to an event. You may want to identify pools of employees that possess certain skills. These employees may be reassigned during an event. For example, which employees have some training or experience in bacteriology, or operating certain instruments, even if that is not part of their present job duties? Do not forget such skills as data entry, specimen accession, or autoclave operations. When creating your employee skill pools, think in terms of the continuum of laboratory testing, from specimen collection to reporting. Be sure you list any employees that have special training or skills such as training in handling radioactive material, current smallpox vaccinations, etc. An actual skill pool inventory, with employees listed by name, should be an appendix to your plan, so that updates can be easily made. Document who will update/maintain this list.
- B. Capacity refers to numbers of employees. Scheduling these employees to cover the workload depends on their skills and the nature and duration of the event. Determine if employees with specialized skills need to be scheduled to cover a 24-hour day rather than working only a single shift as during normal operations. How will routine and acute patient care laboratory testing be covered? How will employees be notified of adjusted work schedules? What process will you establish in order to adjust work schedules if certain staff members are delayed or unable to report to work? It is crucial to schedule down time for employees, even if they cannot actually leave the facility. Employees cannot operate effectively over long periods of time without rest. Consider the possible duration of an event in the scheduling process. Any information on scheduling that lists employees by name should be an appendix, so that updates can be made easily. Document who will update/maintain this list.
- C. What procedures will be used to notify employees to report to work, of changes in work schedule, etc., if an event occurs? How are employees to check in with the laboratory to see if or when they are to report to work? Will you have a specific telephone number, other than the laboratory's main number, that employees should use to check in? What will you do if the telephones are not working? Would you utilize a radio broadcast? If so, be sure that you have coordinated this with the radio station and that employees are aware of what radio station will be broadcasting this information. Also ensure you have coordinated this with the hospital's plan. Actual contact or call-down lists with specific employees and telephone numbers should be an appendix to the plan so that it can be easily updated. Designate and document who will update/maintain this list.
- D. The laboratory must determine if certain vaccinations, such as the smallpox vaccination, should be administered in advance. Do you need baseline bloods or a list of contraindications for staff? If vaccinations or prophylaxis needs to be provided for staff during an event, where and how will that take place? Will there be costs involved? Are there liability issues to be clarified? Will protection be provided for employee family members? If so, address this in advance. The facility must remain aware that employees have responsibilities and concerns outside the workplace. If staff have concerns about their families becoming ill, they are less effective on the job. Consideration should be given to providing vaccination/prophylaxis to family members at the facility rather than directing family members to report to a public distribution site.

Designate and document how records of vaccinations/prophylaxis will be maintained and who will maintain and update them.

- E. Have discussions with the laboratory staff during the planning process. What are their personal concerns and obligations if an event were to occur? Examples might be communication with family members, food and rest areas if required to work long hours/days, personal medication needs such as insulin, child-care or elder family member care concerns, lack of access to news about the event from the outside such as television or internet access, transportation issues, etc. Remember to consider mitigating the stress-related psychological effects of disaster response on the laboratory staff, during the response, and over time after the event. Address all of these concerns in your plan.

III. Specimen Handling

This section deals with how your laboratory will ensure the collection of appropriate patient specimens, the transport of those specimens to your laboratory and the accessioning process in your laboratory. A lot of time and effort may be spent figuring out how samples will be tested in an emergency. It is easy to overlook or forget that bottlenecks can occur in the collection and accession processes. If you have four (4) technologists assigned to test samples, but only one (1) clerical accessioning specimens and creating the sample record, the whole process could be slowed down considerably. Another benefit to planning this process with your physicians and nurses is that it may limit the number of telephone calls coming in. Telephone calls impinge on your staff's time and advanced planning can help to reduce this distraction. This area is a good place to design a tabletop exercise to see if your plans are practical.

- A. Review routine specimen collection. Would there be any change in what, where, or how specimens are collected during an event? Would this be agent specific for diagnostic specimens? If so, you might want to refer the plan user to the appropriate specific appendix. What are the various sites within the facility where laboratory specimens might be collected such as the ER, patient rooms, satellite laboratories, or patients walking in to the laboratory? How will specimens be transported to the laboratory? If the ER personnel usually bring specimens to the laboratory, will they have time if they are flooded with patients? Determine if "event-generated specimens" will be transported differently from "routine specimens". This will require collaborative planning with other hospital areas such as the ER staff and the floor nursing staff. Once decisions have been made, ensure the plan is written out and made available to personnel in the effected areas.
- B. Review how routine specimens are received. Will this change during an event, especially if large numbers of people flood the ER? How will you reassign your workforce to handle this? Will you consider a shortened accession process to get the testing started? If so, how will the sample record be completed? Will you batch samples for more effective use of personnel? What about routine or acute care testing? Would that be handled differently? Whether you test or refer the specimen, the specimen must be logged into your laboratory system.
- C. What criteria will your laboratory use to triage samples for testing? This might include both diagnostic samples and acute care samples such as type and cross match or blood gases. Be sure to work closely with medical staff, especially ER physicians, when establishing the triage criteria. Criteria may be agent specific. For example, you may triage specimens for plague differently than specimens from patients exposed to a chemical release. What this really means is how will the meaning of STAT change during an event? Where will routine patient samples fit into this process? Once a triage criterion has been established, be sure that the medical staff is made aware of this. Establish a process by which any changes in this triage criterion can be quickly communicated to the medical staff if necessary.

Document all of these decisions and designate who is responsible for insuring that this information is available to appropriate medical staff. The more decisions worked out in advance, the better the plan will work. This is one area where establishing those lines of communication before an event will pay off, even during routine operations.

- D. Do you receive specimens from physicians, clinics, or nursing homes outside of your facility? Will there be any change in how these specimens are received during an event? Would routine samples be put on hold, in order to concentrate on specimens being received from patients in your hospital during an event? Will outside specimens be subjected to any additional security precautions? How will the biosafety level of your laboratory influence specimen receipt? Who will decide if outside specimens will continue to be received during an event? Be sure this information is communicated to outside submitters. What about non-traditional partners that might refer specimens during an event, such as local public health agencies? Address non-traditional samples such as environmental or animal samples in your plan. The CDC does not recommend that Sentinel clinical laboratories accept environmental or animal samples for testing. In Missouri, requests for testing non-traditional samples should be referred to the SPHL. Decide in advance how your laboratory will handle requests to test non-traditional samples and communicate that to all identified partners. Establish a communication channel with non-traditional submitters such as community veterinarians or law enforcement. These channels could be utilized during an event to provide information concerning referral of non-traditional samples. In the planning stage, be sure they understand your facility will not accept non-traditional samples for referral or testing. This should eliminate someone showing up at your laboratory with an envelope full of unidentified powder requesting testing.
- E. Determine what specimens, for which agents, will be referred to outside laboratories. Will your process for referring specimens be altered during an event? Do you have guidelines for these referrals? Do you have the contact information for these laboratories? Have you discussed with the referral laboratory how they will handle referral specimens during an event? Special transport directions? What is the turn around time? What are the reporting processes? Be sure any deviations from the routine are documented in your plan. If necessary, provide this to your medical staff and/or outside submitters. Ensure your packaging and shipping instructions, and instructions for shipping referral specimens, meet the current DOT guidelines and ensure this is documented in your plan. The submitting facility is expected to adhere to DOT guidelines for packaging and shipping when using the SPHL courier service. Do you have a chain of custody form as an appendix in your plan? The FBI has indicated routine documentation utilized when a sample is referred will suffice in case of legal prosecution. In the event a "chain of custody" form is requested, you should have a blank form as an appendix included in the plan.

IV. Specimen Testing

This part of the plan should encompass aspects of the testing process in your laboratory including safety, testing protocols, reporting, and quality assurance.

- A. Safety: Determine the biosafety level of your laboratory. Information on biosafety levels and procedures can be found at the CDC website (<http://www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4s3.htm>.) Document safe handling procedures that will be used in your laboratory for biological, chemical, and radiation hazards. This will include safety precautions for the receipt of unknown samples and can be agent specific. Laboratory staff should review their safety measures and determine if a large-scale event might create conditions where a safety breakdown could occur. The director should ensure the necessary safety equipment is available and that staff has been

trained to use the equipment. Many of these issues may have already been addressed within your laboratory. If so, your safety manual (if you have one) can simply be referenced in your plan or safety procedures can be listed in a separate appendix to the plan. Special safety precautions can also be documented in agent specific protocols.

- B. Agent specific protocols will include biological, chemical, and radiological agents. Your instructions will be specific for your laboratory. For some agents, your laboratory may perform "rule out" testing, while others may be immediately referred for testing to another laboratory. Remember to consider any special reagents, supplies or special training that might be required for that agent when determining whether your laboratory will test or refer. Agent specific protocols are best handled as appendices to your general plan.
- C. Reporting: Review your present process for reporting patient test results. Determine whether this process might need modification during an event. Will there be more utilization of telephone reporting? If so, have you considered the staff resources necessary to accomplish this? You need to include partners such as ER staff and physicians in this planning process. Review the definition of STAT during an event. What happens if a patient is transferred from your hospital to another area hospital? How will you ensure that the laboratory report reaches that patient care staff in a timely manner? If you routinely receive specimens from an outside source such as a medical clinic, will the reporting process be modified during an event? Ensure that all partners, both in your hospital and outside your hospital, have been made aware of any reporting changes that may occur during an event. It may be most effective to make one person responsible for updating reporting changes and communicating with partners involved.
- D. Quality Control: While the quality control that you perform should never be reduced, the manner in which the quality control is performed may change during an event. For example, you might assign lesser-trained staff to perform quality control procedures or record quality control results in order to free more highly trained staff to perform testing.

V. Communication

This section should address communication channels within your laboratory and with your partners. A list of both internal and external contacts with telephone numbers should be included within this section. Address the question of redundant communication systems. For example, how will you communicate if the telephone system is incapacitated? Consider the question of security when discussing backup communication systems. Coordinate this with your facility's plan.

- A. How will communication occur between laboratory management and laboratory staff? How formal this process is will depend on the size of the laboratory. (Refer to: *I. Direction and Control C. and E.*)
- B. Who are your partners in the facility? Identify and meet with partners such as nursing staff, ER physicians, etc. Work out how you will support one another on issues like specimen collection and reporting and establish a communication channel for the flow of information between you. How will the existing communication processes work? Will the processes work under the pressure of increased workloads and possible reduction of staff? Information can change rapidly during an event and you will need a way to quickly transmit new or changing information between partners within a facility. Work within your facility's planning effort. This will probably take more than one meeting, so be prepared to devote staff to this activity.
- C. Who are your partners in the community? Law enforcement? Public Health? HazMat? Identify and meet with these partners and establish communication channels for information exchange. Work out an understanding of what information they might need and in what format. Be sure the contact list for these partners is included in your plan.

(Refer to: *I. Direction and Control A.*) During the anthrax event of 2001, the SPHL staff was called upon by many community partners needing technical information regarding the agent and personal protection. While you are working out the communication channels, be sure to develop an understanding of the roles and responsibilities of each partner. This will probably require more than one meeting, so be prepared to devote staff to this activity.

- D. How will your laboratory communicate with state and federal partners during an event? There will be two types of communication occurring: (1) communication about specimen submission and test results, and (2) communication concerning the agent or situational information. How will you contact the SPHL to submit specimens or follow up on test results? How will you find out the latest information/recommendations about the specific agent? Be sure the laboratory staff is familiar with the DHSS website (www.dhss.mo.gov) and the Missouri SPHL website (www.dhss.mo.gov/Lab/index.htm). Have a list of contacts and telephone numbers in your plan for personnel at the SPHL. Ensure your laboratory is registered with the State Public Health Laboratory as part of the Missouri Laboratory Response Network. (Refer to: *Plan Administration Guidelines 7.*) This is the quickest way to receive the latest information about an agent.
- E. Consider how you will handle calls from patients, patient's families, or from the worried well. Although the public may not have access to the direct telephone number, it is inevitable that some of these calls will end up in the laboratory. Be sure you coordinate with your facility's plan. Will the hospital setup a hot line for worried well questions? Will your local public health department? Have this information available to staff answering the telephone so they can refer these individuals somewhere for help. Do not minimize their concern.

VI. Internal Event Response

This section deals with how you would handle an event that was internal to the laboratory. For example, what would you do if a suspicious package was delivered to the laboratory, or if your laboratory became contaminated?

- A. Does your laboratory have a procedure for how to handle a suspicious package that might be delivered there? What will your employees do if they open an envelope/package and find white powder or a threatening note? For instructions regarding handling suspicious mail, you may refer to "Health Alert #44", developed due to the anthrax event of 2001, by the Department of Health and Senior Services (DHSS) at the following website address: www.dhss.mo.gov/BT_Response/HealthAlert_Archive.htm. These instructions can be laminated and posted or included in the plan as an appendix. Coordinate with your facility's plan.
- B. How will you handle an event within your laboratory where contamination occurs? What clean up procedures would be used? Whom do employees notify? What would happen if this occurs during the night shift? Many of these procedures may already be in your safety manual and can either be referenced or added as an appendix to your plan.
- C. Do you have an evacuation plan? Coordinate this with the facility's plan.
- D. How will you continue operations if your physical plant is incapacitated? Incapacitation could occur from contamination, power failure, etc. Will you be able to set up a temporary laboratory in another area of the facility, move off-site, etc.? Have you arranged with another local laboratory to transfer testing in the event your laboratory/facility is incapacitated? This could be part of the Mutual Aid Agreement you have with another facility to provide aid in case of overload. (Refer to: *I. Direction and Control F.*)

VII. Support Services

This section deals with any special arrangements that have been made for support services during an event and should be coordinated with the facility's plan.

- A. Clerical support and record management: This deals with everything from patient record creation to quality control records. If specimen volume increases dramatically, it may become necessary to provide extra support in this area. All appropriate staff members should be included in this planning.
- B. Telephone communications: When an event occurs and testing demands increase, the number of telephone calls may increase as well. How will you handle increased time spent on the telephone while keeping your technical staff free to perform needed testing? Existing processes may not be sufficient.
- C. Ordering supplies: How you will get supplies/reagents into your laboratory quickly if faced with a high volume demand? How long will it take to get these supplies delivered? Who will order the needed reagents/supplies? It may be possible to arrange with your suppliers to shortcut the ordering process as much as possible. You may need to work this out with your facility's fiscal office in advance, as well. During a time of crisis is not a good time to figure out billing details.
- D. Waste management: Will there be extra demands on waste management during an event? Will the existing processes accommodate these demands or will different plans need to be made?
- E. Facility support services: Look carefully at the facility support services for your laboratory. Emergency power for the laboratory is vital for the continuation of service. Are there emergency plans for continuation of power, air conditioning, water, etc. during an event/emergency? Is the laboratory included in these plans? Remember some testing is heat sensitive and if the air conditioning is down testing may not be able to be performed. Consider fans or portable air conditioners, emergency lighting, flashlights, etc.

VIII. Security

- A. Are there any specific security measures in effect in your laboratory now? Are there areas with restricted access, requirements of employee ID badges, etc? Will these measures change during an event?
- B. Are there any specific security measures in effect in the facility now? How might these security measures change during an event? Be sure your employees are aware of how security measures will change during an event. Include contact and telephone numbers for facility security personnel.